BROADCAST tools INC

PROBLEM SOLVED

Installation and Operation Manual

2x10 DA
Stereo Distribution Amplifier

Manual update: 02/01/2012

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INTRODUCTION

Thank you for your purchase of the 2 x 10 DA Stereo Distribution Amplifier, which we will refer to through out the manual as the 2 x 10 DA. We're confident this product will give you many years of dependable service. This manual is intended to give you all the information needed to install and operate the product.

SAFETY INFORMATION

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If you have any questions regarding your product or you need assistance, please contact your distributor from whom you purchased this equipment.

If you would like more information about Broadcast Tools® products, you may reach us at:

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Assembled in the USA, by American Workers

CAUTION!

Broadcast Tools® Products, as with any electronic device, can fail without warning. Do not use this product in applications where a life threatening condition could result due to failure.

NOTE:

This manual should be read thoroughly before installation and operation.

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PRODUCT DESCRIPTION

The **2 x 10 DA** stereo distribution amplifier is equipped with a stereo line level high Z input, which accepts a balanced or unbalanced source with ten active balanced low Z output amplifiers. Each output amplifier may be paired for stereo or each output pair may be summed for monaural operation without degrading the integrity of the other outputs. Each stereo output amplifier has a front panel recessed level control.

Features: Front panel +/- DC power and stereo audio activity led's, monaural configuration jumpers, removable screw terminals and selectable input gain of –10dbv or +4dbu, eliminating the need for additional level conversion. The 2x10 DA is powered by a surge protected **internal bi-polar 15vdc power supply** affording **superior headroom and high definition audio.** The 2x10 DA may be set on a desktop, mounted on a wall or up to **three** units mounted on the RA-1 mounting shelf.

INSTALLATION

Please examine your 2x10 DA carefully for any damage that may have been sustained during shipping. If any are noted, please notify the shipper immediately and retain the packaging for inspection by the shipper. The package contains the 2x10 DA, 16vAC only @ 600ma wall power transformer, one daisy-chain power cable and this manual.

Installation of the 2 x 10 DA in **high RF environments** should be performed with care. Shielded cable is suggested for all audio connections. All shields should be tied to the "GND" Ground terminals. The station ground should be connected to the chassis ground screw located on the far right side of the 2 x 10 DA as viewed from the rear. It is recommended that all cables connected to the 2 x 10 DA be looped through ferrite cores to suppress RF.

Note: Refer to the Appendix for component layout and fractional schematics.

Input Gain: The internal input gain jumpers JP4-5 set the left channel gain, while JP6-7 set the right channel gain. Follow the silk-screened labels on the PCB for the correct gain settings. The factory default setting is **+4dBu.**

LT/RT Act Led's: The front panel led's indicating left and right input audio activity.

Monaural setting: Each stereo output has a MONO jumper. Follow the silk-screened labels on the PCB. If the jumper is installed, that output will be combined to monaural. Placing a jumper over JP1 converts output one to mono, JP2 output two, JP3 output three, JP8 output four and JP9 addresses output five. The factory setting is **Stereo**. The five stereo outputs operate independently; setting one output pair to MONO, does not degrade the integrity of the other stereo outputs. Each output has a front panel gain adjustment for setting output levels.

Inputs: Connect your audio source to the 2 x 10 DA inputs. The left input is labeled: "INL- INL+" and the right input is labeled: "INR- INR+". For unbalanced inputs, install a jumper between the "-" input and GND. Single (mono) inputs may be fed to all output channels by connecting the left and right inputs in parallel.

Outputs: Connect each left load to the 2 x 10 DA outputs; labeled: 1L-/1L+, 2L-/2L+, 3L-/3L+, 4L-/4L+ and 5L-/5L+". Connect each right load to the 2 x 10 DA outputs; labeled: 1R-/1R+, 2R-/2R+, 3R-/3R+, 4R-/4R+ and 5R-/5R+" For unbalanced loads, use the **"+"** and GND terminals only.

Do not connect the "-" terminal to ground. Shields should be tied to the "GND" terminals.

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OPERATION

Power: Insert the power plug into either of the power jacks on the rear panel and the wall transformer into the proper AC outlet. Verify that the front panel +/- power LED's are illuminated. Two additional 2x10 DA's may be powered by utilizing the supplied daisy-chain cable.

Level Adjustment: Use the stereo front panel level adjustments to set each output for the desired level.

SPECIFICATIONS

Input Level	-10dBv to +4dBu nominal, MIL: +24dBu.
Input Impedance	20K Ω balanced, 10 K Ω unbalanced.
Output level	+4dBu nominal, MOL: +24dBu @ 600 Ω, balanced.
Output Impedance	100 Ω balanced, 47 Ω unbalanced.
System Gain	20dB
Frequency Response	20 - 20kHz, +/- 0.1dB
Noise	85dB below nominal output.
THD	.005%, 20 - 20kHz.
IMD	.005% (250/7kHz)
Connectors	Audio Inputs/Outputs connections - removable screw Terminals.
Power Requirement	16 vAC only, 600 ma, wall transformer, dual 2.1mm jacks to allow daisy-chaining of two additional 2x10 DA's from one wall transformer. (220 Vac 50-60 Hz CE wall transformer OPTIONAL)
Size:	5.66" x 7.00" x 1.58", Painted aluminum chassis w/ 4 - 4-40 mounting holes.
Weight:	2.0 lb.
Options:	RA-1, Rack shelf, filler panel included. 1 RU.

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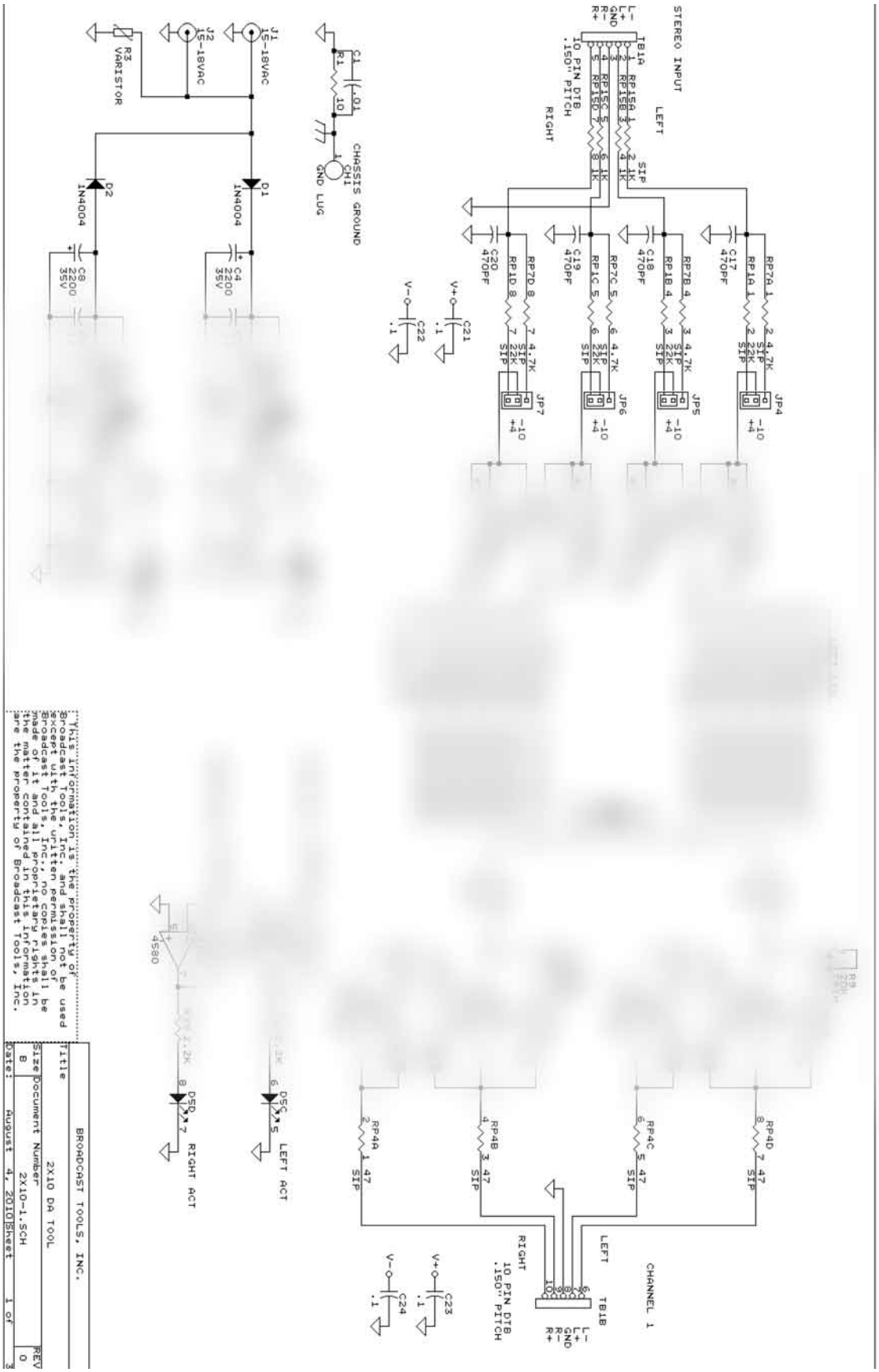

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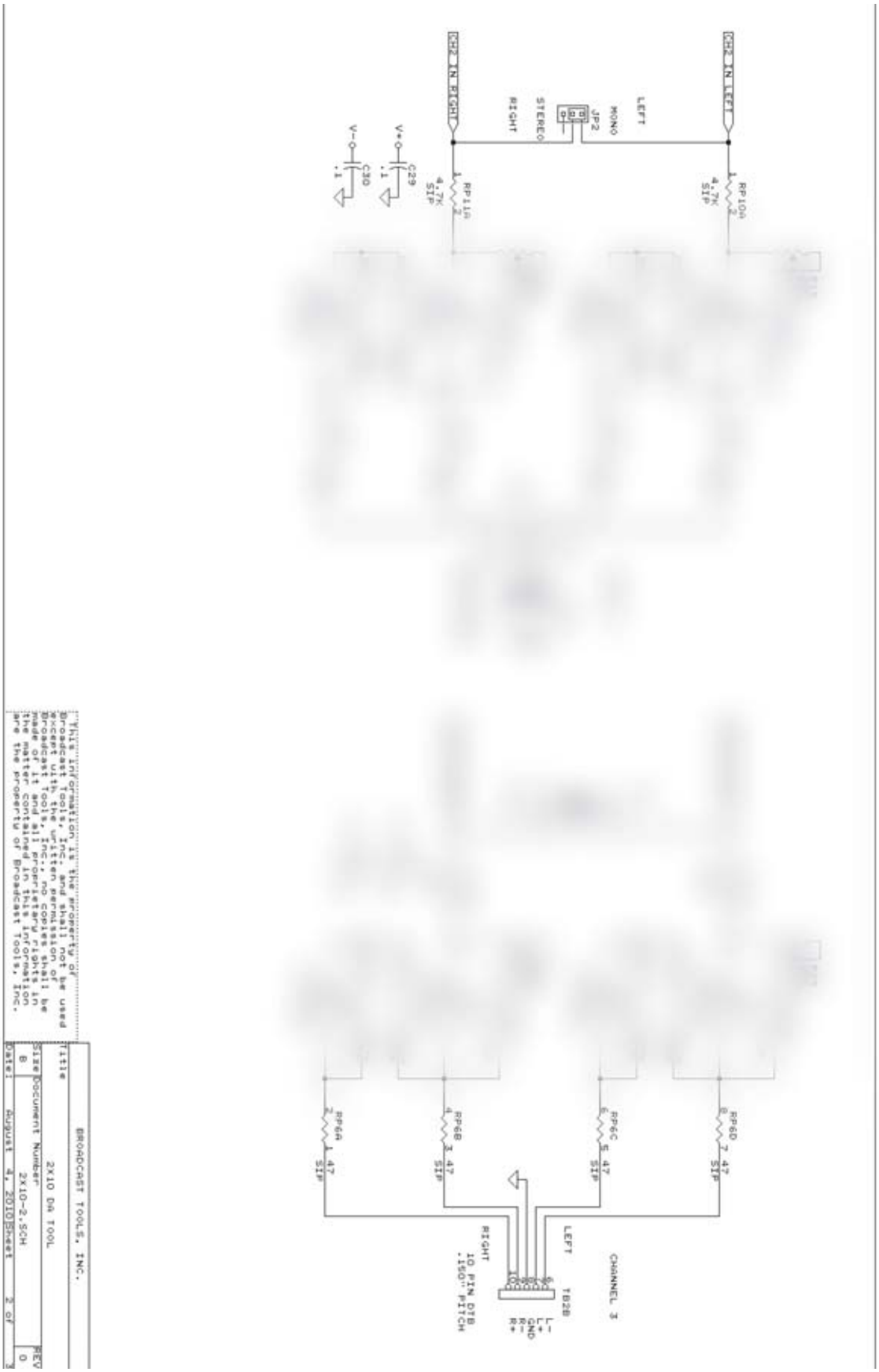

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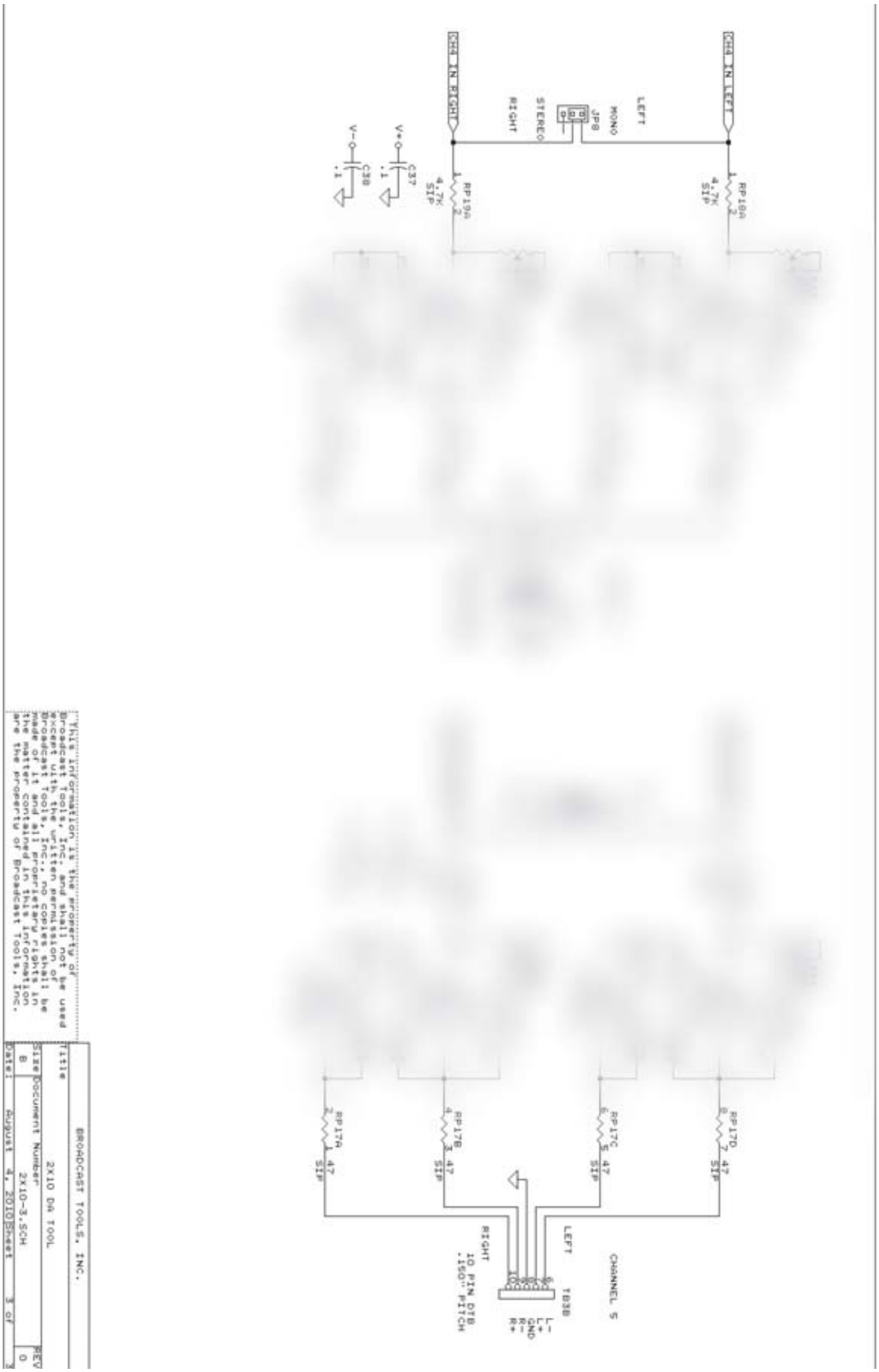

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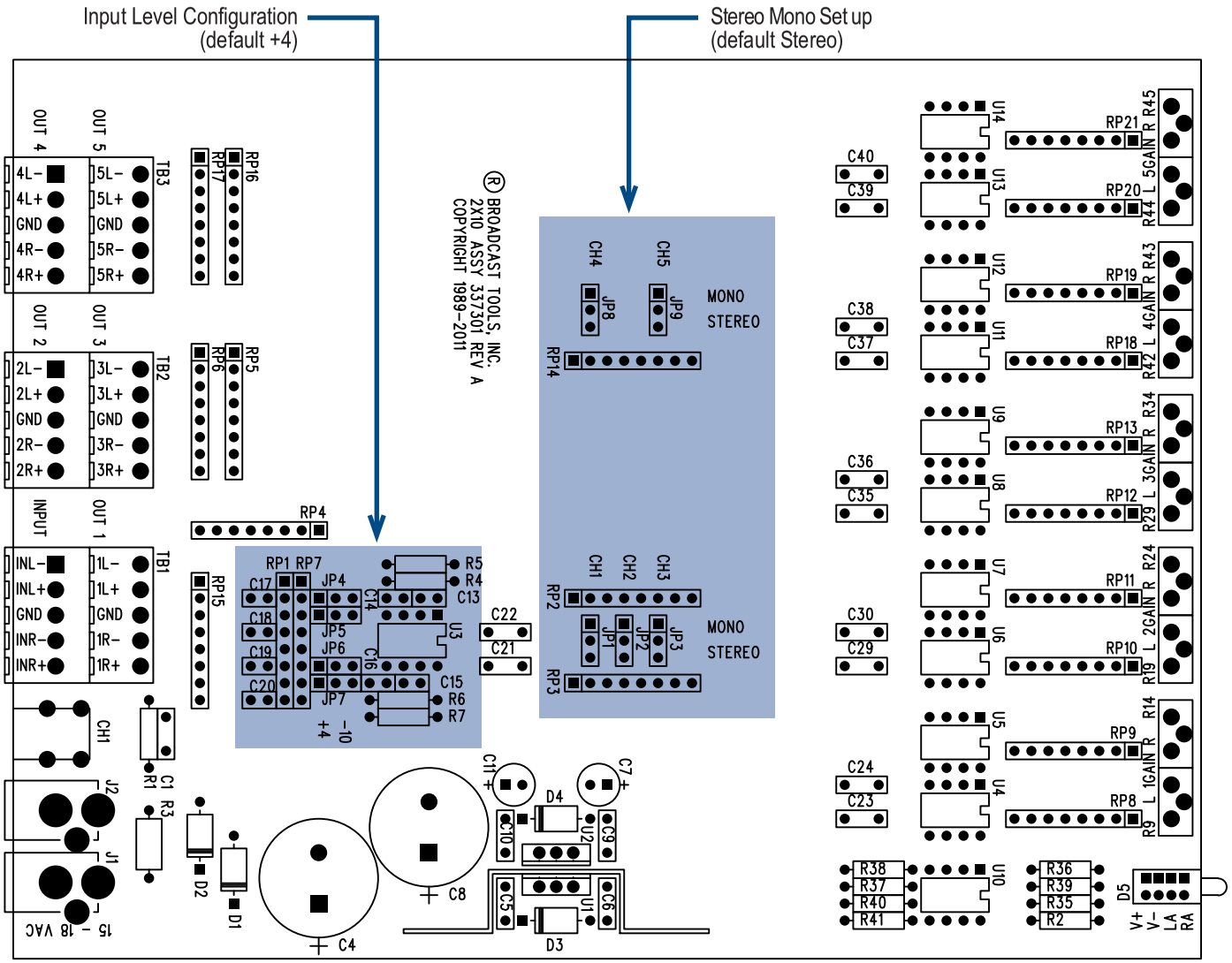
Broadcast Tools® 2x10 DA

Component Layout



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